



In close  
cooperation

# Game of life

## Workshop





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WHAT IS **TDD**?





1. Write a test
2. Run the test, see it **fail**
3. Write **code** to fix the failing test
4. Run the test, see it **succeed**
5. Refactor the code
6. Repeat

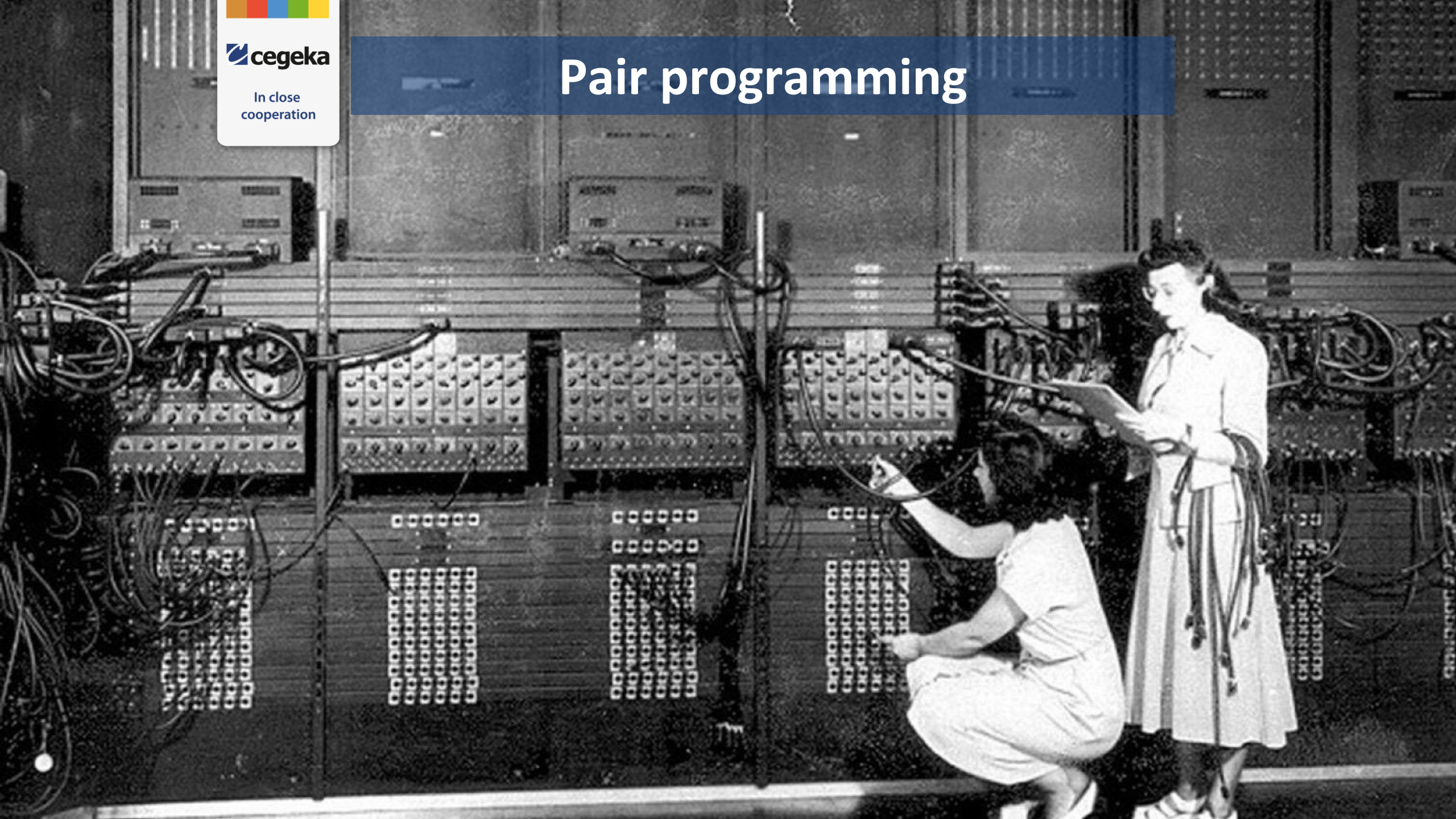




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# Pair programming



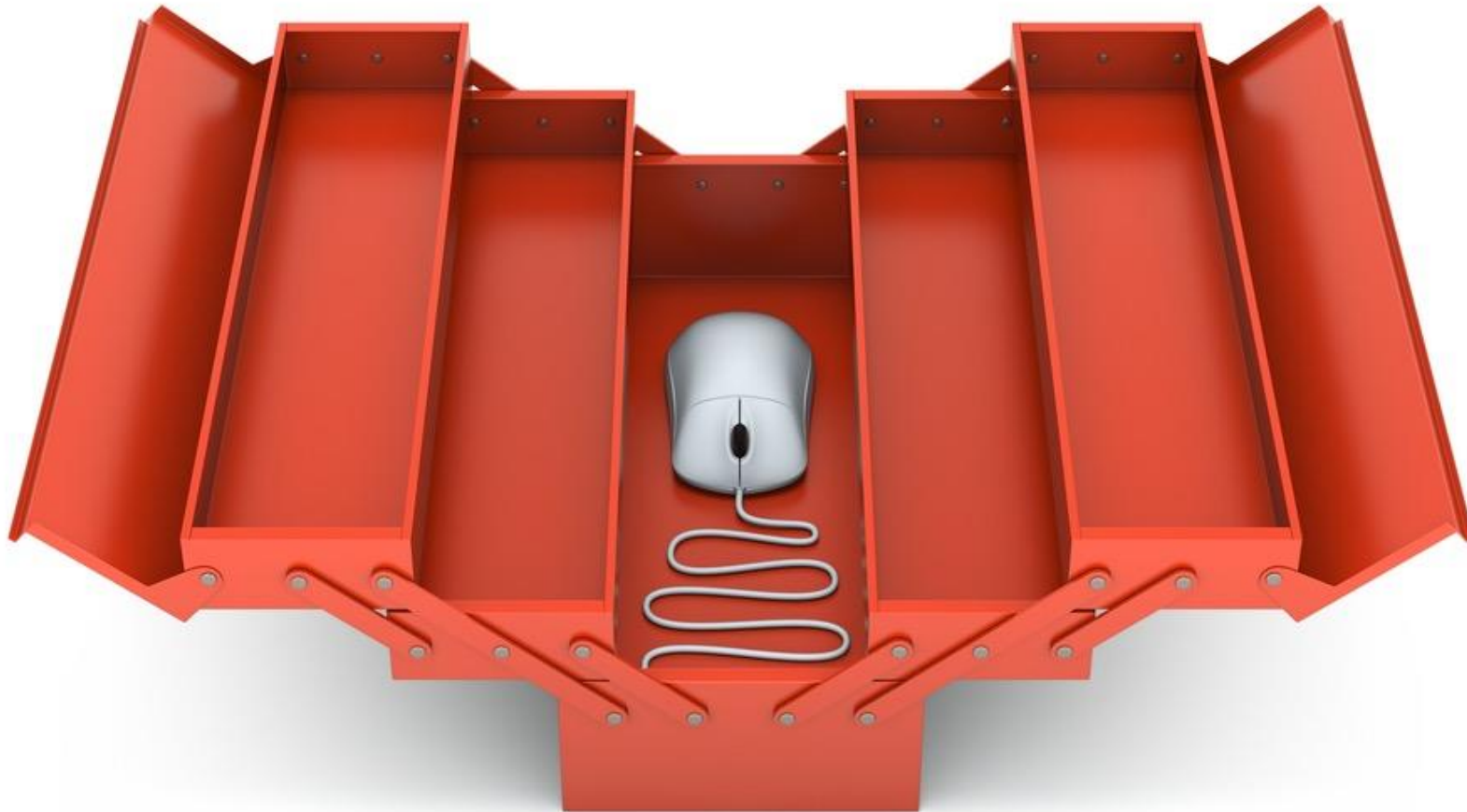


# EXERCISE: FIZZBUZZ

1. Return list of numbers from 1 to X where X is provided
2. If X is  $\leq 1$ , throw an `IllegalArgumentException` with a custom message
3. Return "Fizz" when the number is divisible by 3
4. Return "Buzz" when the number is divisible by 5
5. Return "FizzBuzz" when the number is divisible by both 3 and 5

# Tools

jdk 8 - git - IDE



# Git

The GitHub Octocat mascot is centered in the background. It is a black cat-like creature with a large head, small body, and eight tentacles. It has a friendly expression with large eyes and a small smile. It is standing on a light blue circular base that resembles a puddle or a small island.

```
# git clone https://github.com/fransquelinckx/gameoflife.git  
# git checkout  
  
...do some coding...
```



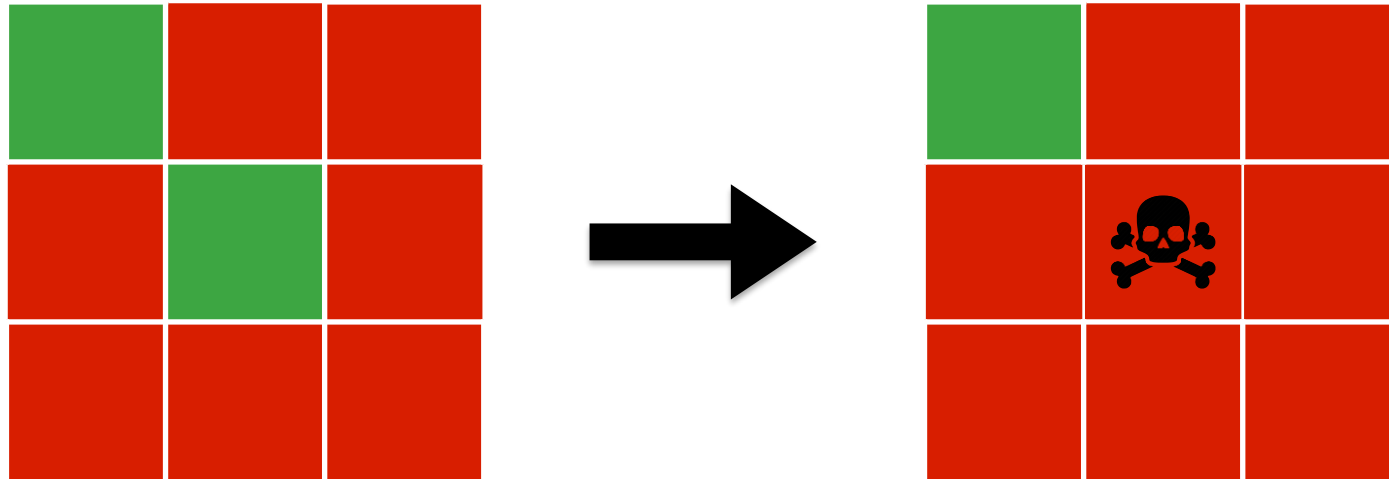
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# Game of life

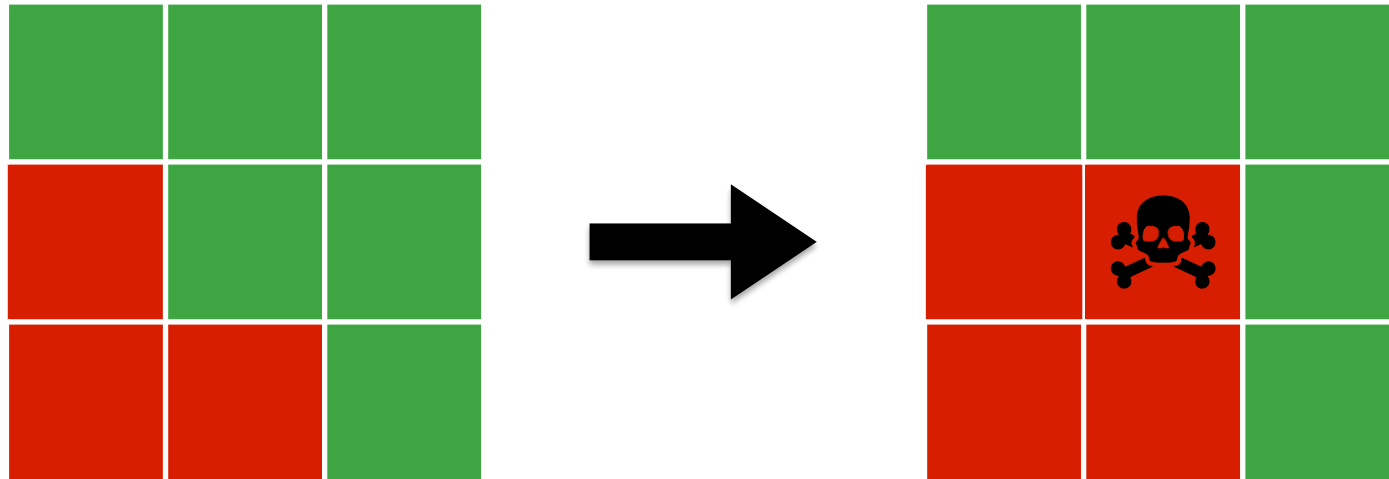




# Underpopulation ( $< 2$ )



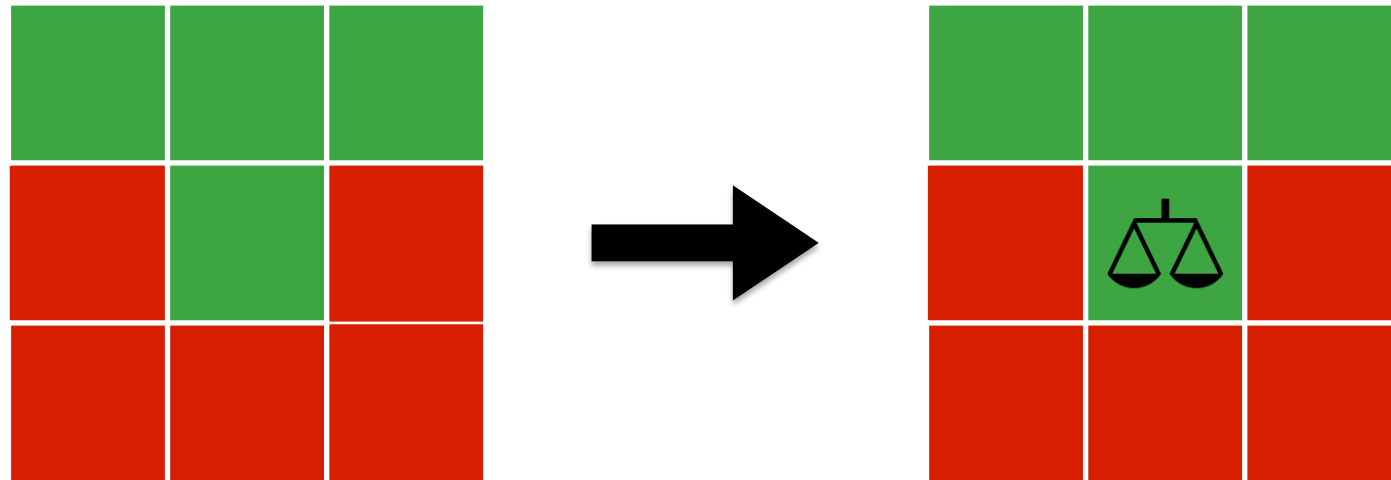
# Overpopulation ( $> 3$ )





# Sustenance

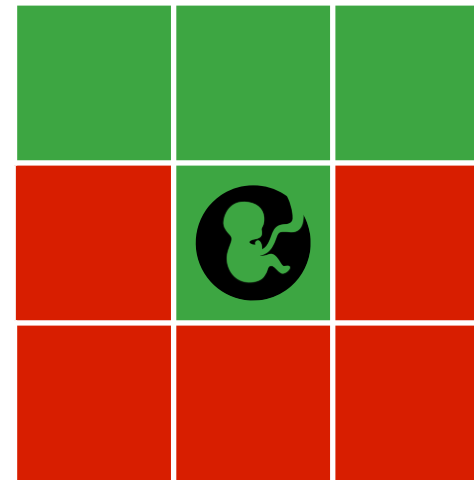
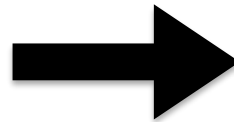
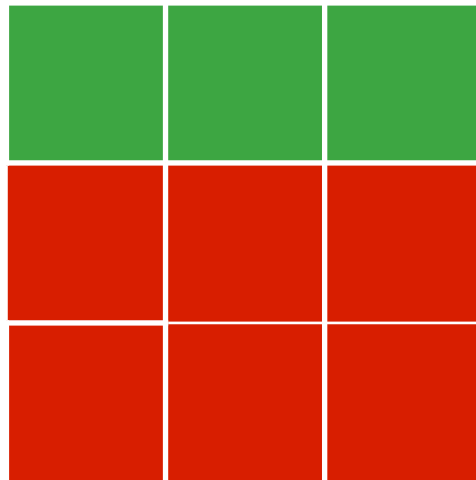
(== 2 || == 3)





# Reproduction

(== 3)







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# Assumptions

finite world

square world



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# User interface

Internet Explorer has encountered a problem and needs  
to close. We are sorry for the inconvenience.

If you were in the middle of something, the information you were working on might be lost. Please tell Microsoft about the problem so we can improve Internet Explorer. We will treat this report as confidential and anonymous.

To see what data this error report contains, [click here](#).

Send Error Report

Don't Send

Send Error Report

Don't Send

end

end

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end





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# Run

## \*nix

```
# ./mvnw clean spring-boot:run
```

## windows

```
# mvnw clean spring-boot:run
```





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# 4 rules of simple design

**1. Passes all tests**

**2. Minimise duplication** (of concepts)

**3. Reveals intent / maximise clarity**

**4. Fewest elements**